

SETAC-Europe LCA Working Group 'Data Availability and Data Quality'

Driving Forces for Data Exchange

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Abstract. The subgroup 'Driving Forces for Data Exchange' as part of the SETAC LCA Workgroup on Data Availability and Quality is finishing its final report with recommendations and guidelines to stimulate availability and exchange of LCI data. Activities in the past three years involved a literature review, interviews with LCI data publishers and stakeholder discussions. The final report will be part of a SETAC 'Code of Life Cycle Inventory Practice', dealing with LCI data availability and quality aspects in a broader sense.

Keywords: LCI data; life cycle inventory (LCI) data; LCI data; SETAC LCA-WG, Data Availability and Data Quality; SETAC LCA-WG, Subgroup Driving Forces for Data Exchange

1 Objectives of the Subgroup

The objective of the subgroup 'Driving Forces for Data Exchange' was to develop guidelines and recommendations to improve availability and free exchange of LCI data. This was done through a literature review and via existing experience in the network of the subgroup members.

LCI data are exchanged through publication and data sharing amongst parties. In the latter case, data exchange is the result of negotiations between parties, which allows the data originator to keep control on how the final data will be used. For example, LCI data may be shared on condition that final results will be aggregated to protect the confidential character.

The series of interviews were conducted with LCA practitioners however, all focused on cases in which LCI data were collected and published.

2 Work Accomplished

The workgroup on 'Driving Forces for Data Exchange' has delivered on the following subjects:

1. **Short Introduction to LCA for the newcomer:** This section provides an introduction to the concepts of LCA in general and in some detail to data quality formats such as ISO, SPOLD and SPINE, for those who are newcomers.
2. **Interviews with LCI data collectors:** A series of interviews were held with European practitioners with the

main purpose of determining potential barriers for data exchange and to learn how these are overcome.

3. **Stakeholder discussions:** Two sessions of discussions were held with stakeholders in Australia with the objective of finding solutions on how to overcome barriers for LCI data exchange.
4. **Literature review:** Conclusions from the European interviews and the Australian stakeholder discussions were compared with learnings from literature published on similar projects.
5. **LCI database maintenance:** Ideas are formulated on how LCI database maintenance may be managed.
6. **Overview of public LCI database initiatives:** This section gives an overview of initiatives around the globe to develop LCI databases available to the public.

Each of the six identified areas of focus are discussed in more detail in the final report of the workgroup on 'Driving Forces for Data Exchange' as part of the 'Code of Life Cycle Inventory Practice' document that the SETAC workgroup is envisioning.

3 Conclusions

A recent study on the use of LCA in business (Frankl and Rubrik 1998) shows that there is a learning curve before LCA is actually implemented. The learnings from this report, such as triggers for doing LCA studies are believed to be good guidelines for new and experienced LCA practitioners to help stimulate LCI data exchange. Review of the learnings of a Dutch study (VNO-NCW, 1999) re-identified the need for stakeholder involvement and trust-building, outlining that industry may accept data for LCA as a support tool but not as a decision tool.

Whilst it was not excluded, the interviews that were conducted with LCI data publishers showed no negative outcome of the publication. However, potential negative reaction from stakeholders is often referred to as a concern to collect and publish LCI data.

It is essential that LCI data collection continues to be promoted to stimulate more initiatives to improve availability and exchange of LCA data and further increase the development and maintenance of LCI databases.

4 Recommendations and Guidelines

It should be clear that the recommendations outlined in this report are not all applicable to each individual situation. For example, the barriers against data exchange of a study performed by a 'newcomer' may be of a complete different nature than for a study by a well-known institute or company.

The following recommendations are suggested to eliminate barriers for data exchange:

- Improve the awareness about the importance (benefit!) of the knowledge of the environmental effects of products over the whole life-cycle.
- Find sound justification, preferably terms of economic or market opportunities or needs (pay back for the cost and time involved).
- Start simple: promote the exchange of information within single chains, start low key, step by step, only relevant data.

- Use independent institute/person to overcome barriers like confidentiality, lack of expertise.
- Work at Association level to overcome barriers of methodology development and/or cost.
- Learn from other infrastructures like financial accounting.
- Combine with other aspects of products (no separation of environmental aspects/data) – often other benefits come with the collection of data.
- Chains could take the initiative, the exchange can be chain specific.
- Ensure there is a mechanism and forum for stakeholders to be engaged in discussions with each other on the needs of each throughout the process of conducting an LCA.
- Adopt developing international standards on data formatting and reporting.

References

- [1] Frankl P and Rubik F (1998): Application Patterns of Life Cycle Assessment in German, Italian, Swedish and Swiss Companies. Comparative Results and Conclusions, Berlin
- [2] Businessplan for an infrastructure on the exchange of (product-related) environmental data, communication with the Confederation of Netherlands Industry and Employers VNO-NCW (study commissioned to Technical University Delft, October '99)